

IN THE CLAIMS

1-22. (Cancelled)

23. (New) A vacuum cleaning chamber comprising a plasma discharge section, a gas supply operatively connected with a gas tank arrangement and with a workpiece holding arrangement, wherein said gas tank arrangement feeds to said gas supply a gas predominantly comprising nitrogen.

24. (New) A vacuum cleaning chamber of Claim 23, wherein said workpiece holding arrangement is constructed to hold at least one disk-shaped or plate-shaped workpiece, resides within said vacuum cleaning chamber and comprises at least one access slit open to the interior of said vacuum cleaning chamber.

25. (New) The chamber of Claim 24, wherein said holding arrangement defines for a holding plane for said disk-shaped or plate-shaped workpiece and said slit extends substantially parallel to said plane.

26. (New) The chamber of Claim 25, wherein said slit extends laterally with respect to said holding plane.

27. (New) The chamber of Claim 24 comprising more than one of said access slits.

28. (New) The chamber of claim 23, wherein said holding arrangement is constructed to hold more than one disk- or plate-shaped workpiece, one upon the other and distant from each other.

29. (New) The chamber of Claim 23, wherein said plasma discharge section is a low-voltage discharge section.

30. (New) The chamber of Claim 29, wherein said low-voltage discharge section comprises an electron-emitting hot cathode.

31. (New) The chamber of Claim 23, wherein said gas tank arrangement feeds to said gas supply said gas containing hydrogen.

32. (New) The chamber of Claim 23, wherein said tank arrangement feeds to said gas supply said gas comprising a working gas.

33. (New) The chamber of Claim 10, wherein said working gas is at least one noble gas.

34. (New) The chamber of Claim 23, wherein said holding arrangement comprises a magazine with more than one of said slits stacked one upon the other.